

## ABSTRACT

## Transmitting data words

[30990036]

5 Codeword synchronization and scrambler synchronization in a block-coded serial  
communications link are accomplished by (i) substituting a specific comma control  
codeword for a selected codeword value occurring in the output of a scrambler receiving  
an input data stream, and (ii) using selected polarity-independent bits of the block-coded  
scrambled bit stream to convey samples of the scrambler state. Inversion of received  
control codewords indicates polarity inversion somewhere along the link, enabling  
10 automatic polarity correction to be applied.

(Fig. 3)